Cisco Universal Small Cell 7330

Product Overview

The Cisco® Universal Small Cell (USC) 7330 is an indoor small cell that provides Wideband Code Division Multiple Access (WCDMA) coverage and capacity to public areas where macro networks cannot do so cost-effectively. These locations range from venues for indoor events requiring high-density service to concourse spaces, such as shopping malls, airports, and stations that are characterized by sudden surges in demand. Users in these locations require high data throughput as a viable complement to Wi-Fi and also need good coverage across the public space. In addition to transforming the mobile experience and helping service providers cope with challenging congestion conditions, the Cisco USC 7330 reduces network costs through intelligent policy-based operation, by making use of commodity in-building backhaul.

Figure 1. Cisco USC 7330

Features and Benefits

Systems deployed in busy metro areas must be able to meet the high demands created when many users generate bursty traffic, along with the associated signaling. Cisco has developed features and algorithms that allow small cells to self-adjust to these demands, optimizing coverage and capacity to provide sustainable service.

For busy small cells interacting with the existing macro network, mobile operators demand key performance indicators (KPIs) to match those of the macro network. The Cisco USC 7330 (Figure 1) is a highly available device designed to provide up to 99.999 percent availability in high-traffic environments, using commercially proven software enhancements to maximize cell uptime. In common with all Cisco small cells, the Cisco USC 7330 offers fully automated real-time interference management, which is further enhanced using self-organizing network (SON) techniques for multicell clusters.

Low-cost scalability, maintenance and new service delivery are provided by the Cisco Universal Small Cell (USC) Cloud Base lifecycle management system, which is dedicated to small cell deployments. The result is a compelling combination of flexible capacity and coverage with a low total cost of ownership (TCO) for a network that can be deployed quickly and easily.

Main Features

- Support for Evolved High-Speed Packet Access (HSPA+)
- High-availability software
- Allocation of 3G coverage and capacity
- Support for up to 16 active 3G users
- Fully-automated, macro-aware, real-time radio interference management and self-configuration
- SON support for multicell deployments, with no local enterprise small cell gateway needed
- Cisco USC Cloud Base software automation and lifecycle management systems that simplify installation, reduce TCO, and accelerate rollout

Product Specifications

Table 1 lists the detailed product specifications for the Cisco USC 7330.

Table 1. Product Specifications

Item	W-CDMA Specification
Throughput	HSDPA+ 64QAM High-Speed Uplink Packet Access (HSUPA) 5.76 Mbps
UE category	HSDPA Cat 5-10 and 12-14
Users supported	16 active users
Bandwidth options	5 MHz
Frequency bands	Bands 1, or 2/5
Maximum transmit power	1 x 24 dBm (250 mW)
Standards (3GPP)	Release 8
Core network interface	Iuh standard
Mounting options	Wall or desk-mount design
Security	Network connection security: IPsec Device security and authentication: Certificate Air interface ciphering and integrity: f8/UEA1 and f9/UIA1
Timing	Network Time Protocol (NTP), GPS, and macro sniff
Location	GPS and CellID
Management	Broadband Forum TR-069 and TR-196
Connectivity	100BASE-T and 1000BASE-T Ethernet, electrical
Power supply	240 and 110V AC
Operating temperature	0 to 40ºC (32 to 104 ºF)
Cooling	Convection only
Weight	Less than 520 g
Dimensions	(W x H x D) 182 mm x 184 mm x 38 mm (excluding mounting plate)

Licensing

The software for the Cisco USC 7330 is only licensed by Cisco to service providers and others that have the rights and authority to deploy and radiate in the licensed spectrum bands.

Ordering Information

The Cisco USC 7330 is available for sale to service providers that have WCDMA, HSPA, and HSPA+ technology and spectrum assets in 3G Band 1 (2100 MHz) or Bands 2 or 5 (1900 or 850 MHz). To place an order, visit the Cisco Ordering homepage. To download software, visit the Cisco Software Center. For part numbers, refer to Table 2.

Table 2. Product Part Numbers

Hardware

Product Name	Description	Order Code
Cisco Universal Small Cell 7330 (EU Version)	3G Standalone Band 1; 250 mW 1x1 SISO; Base Load, Open Access, HSDPA+ ready, High Data Mobility ready, GPS	USC7330-AI-K9
Cisco Universal Small Cell 7330 (USA Version)	3G Standalone Band 2/5; 250 mW 1x1 SISO; Base Load, Open Access, HSDPA+ ready, High Data Mobility ready, GPS	USC7330-BI-K9

Software

Product Name	Description	Order Code
WCDMA Base Load	USC 7000 Base Load 16 users, 3G, 250 mW, Open mode, HSPA, enhanced mobility, 3GPP R8	R-USC73-BL16-K9
WCDMA HSDPA+	HSDPA+ support	L-USC73-HSPP
WCDMA Hand In	Hand in on Iuh network	L-USC73-HNDN
WCDMA Cell Broadcast PWS	Cell Broadcast	L-USC73-CBRC
WCDMA Debug	Debug mode for USC7000 3G (Maximum 5 USC7xxx allowed) - priced per FAP	L-USC73-DBMO
WCDMA Technician API	Technician GUI API	L-USC73-TGUI
WCDMA IRAT to LTE	4G IRAT support for 3G cell	L-USC73-4GMO
WCDMA Activation	CloudBase USC 7000 3G Activation	L-USC73-ACTV
WCDMA SW Delivery	USC 7000 3G Software delivery via CloudBase for Upgrades	L-USC73-UGCB

System Requirements

Table 3 lists the system requirements needed for successful deployment of the Cisco USC 7330.

Table 3. System Requirements

WCDMA network	Standards-based Iuh Home Node B gateway (HNB-GW), usually through a secure gateway (SeGW) to terminate IPSec, for communication with existing 3G core network using Iu interfaces (This HNB-GW can be separately provided by Cisco as functionality available on Cisco ASR 5000 Series products.)
Management system	TR-069-compliant management system to manage the hardware and Wideband Code Division Multiple Access (WCDMA) capabilities of the product.
Power supply	Ships with a power block to convert from AC power to DC, which requires 240 or 110V AC mains power supply.
Backhaul	Suitable backhaul to handle WCDMA HSPA traffic.

Limited Lifetime Hardware Warranty

The Cisco USC 7330 includes one year limited hardware warranty with a 30 day return for repair. More detailed warranty information is available on Cisco.com at the Product Warranties page.

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Cisco Small Cell Services

The Cisco Small Cell Solution is delivered by Cisco Services, an organization with unparalleled experience and expertise in implementing large commercial small cell deployments and providing world-class systems service integration. With specialized tools, knowledge, methodologies, best practices, and a collaborative delivery model that combines Cisco expertise with our partners' and customers' capabilities, Cisco Services achieves superior results. We help service providers mitigate risk, accelerate time to market for new revenue-generating services, reduce total cost of ownership, increase the value of investments, and improve the customer experience through service assurance.

The Cisco Services team delivers comprehensive support, encompassing the service provider's full network lifecycle. Through a lifecycle approach to services, Cisco has developed consistent and proven methodologies to help service providers successfully design and deliver new service offerings. These services are customized to an operator's needs and are delivered through an extensive global support infrastructure, which includes the award-winning Cisco Technical Assistance Center (TAC), Cisco Services resources, Centers of Excellence, small cell interoperability testing (IOT) and system verification test (SVT) labs, and ecosystem partners.

For More Information

For more information about the Cisco USC 7330, visit http://www.cisco.com/go/smallcell or contact your local account representative.

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Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

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